

MONITOR WELL PRE-SPUD PROPOSAL

- 1) WELL NAME/NUMBER: ST-1 (Deep)
- 2) PROPOSED LOCATION: (a) General (on or off-site) Off-site
(attach map) Site Area State Land Section
(b) Sect 32 Twnshp 20S Rng 3E SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$
- 3) WELL PARAMETERS:
 - (a) Est. total depth 700 (ft) (b) Est. ground elevation @4500 ft
 - (c) Anticipated stratigraphy:
Alluvium (Santa Fe Group) from 0 ' to TD ' (depth)
from _____ ' to _____ ' (depth)
 - (d) Anticipated water bearing horizon(s):
Alluvium (Santa Fe Group) at 475 ' (depth)
at _____ ' (depth)
 - (e) Anticipated static water level 435 ' (depth)
- 4) WELL PURPOSE/JUSTIFICATION (attach maps and table if needed):
To provide groundwater quality data to assist in determining vertical extent and concentration of contaminants deep in the aquifer within the Western Boundary Fault (WBF) Zone.
- 5) PROPOSED DRILLING PARAMETERS:
 - (a) Drilling method(s): (air/foam/mud rotary/auger/etc.)
Mud Rotary from 0 ' to TD ' (depth)
from _____ ' to _____ ' (depth)

Air-foam method: "Quik-Foam" surfactant/water mixture used in conjunction with filtered compress air.

Mud-rotary method: Bentonite mud/water mixture.

WELL NAME/NUMBER: ST-1 (Deep)

- (b) Lithology sampling - collect sample every:

5' intervals Method Grab from 0 to TD (depth)
Core type 6" Dennison from to (depth)
2" Christiansen from 540 to 550 (depth)

- (c) Anticipated drilling additive(s): E-Z mud (if needed)

7) PROPOSED WELL COMPLETION DESIGN/MATERIALS

(a)	Casing:	Material	Diameter	From	To	Comments
	Temporary					
	Surface		<u>10"</u>	<u>0</u>	<u>100' max</u>	
	Screen (10')	<u>Stainless ++</u>	<u>4"</u>	<u>To be determined</u>	<u>from Geophysical</u>	<u>0.02"</u>
				<u>logs</u>		
	Completion Pipe	<u>stainless +</u>	<u>4"</u>	<u>0</u>	<u>TD</u>	<u>*</u>

Standard material: Blank riser, silt trap, locking cap

N/A Data not available at this time

* for deep completions (450 feet or more)

** for shallow completions

+ Type 304, Schedule 5 stainless steel

Type 304, Schedule 10 stainless steel

++ Regular strength screen, extra strength screen used below 450 feet

- (b) Filter pack: Standard 8/20 and 16/40 sand and bentonite plug(s), grout to surface.

8) PROPOSED WELL DEVELOPMENT

- (a) Surge and bail with surge block and bailer.

- (b) Pump with submersible pump until parameters stabilize.

9) WELL AUTHORIZATION

- (a) Proposed by Geoscience Consultants, Ltd.

(b) Authorized William E. Waldrip NASA W. E. Waldrip
(name) (representing) (signature)

NASA-WSTF WELL LOCATIONS

